abcam

Product datasheet

D 2 Hydroxyglutarate Assay Kit (Colorimetric) ab211070

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Overview

Product name D 2 Hydroxyglutarate Assay Kit (Colorimetric)

Detection methodColorimetric

Sample type Urine, Serum, Plasma, Cell Lysate, Tissue Lysate

Assay type Quantitative
Sensitivity 10 µM

Species reactivity Reacts with: Mammals, Other species

Product overview D-2-Hydroxyglutarate Assay Kit (ab211070) provides a convenient method to detect D-2-

Hydroxyglutarate (D2HG) in urine, cell and tissue lysates. In this assay, D-2-Hydroxyglutarate is

oxidized to α-Ketoglutarate in the presence of D2HG Enzyme and Substrate Mix. The

intermediate reduces the probe to a colored product with strong absorbance at OD 450 nm. This absorbance is proportional to the amount of D2HG present in the samples. This assay kit is fast, sensitive, easy to use and high-through adaptable. It can measure D-2-Hydroxyglutarate levels less than 10 μ M in various samples. This product is specific for D-2-Hydroxyglutarate and does

not detect L-2-Hydroxyglutarate.

Notes This product is manufactured by BioVision, an Abcam company and was previously called K213

D-2-Hydroxyglutarate (D2HG) Assay Kit (Colorimetric). K213-100 is the same size as the 100

test size of ab211070.

In eukaryotic cells, Isocitrate Dehydrogenase (IDH1, IDH2 and IDH3) catalyzes the interconversion of Isocitrate and α -Ketoglutarate. In human cancers, an IDH mutation causes a gain-of-function, which reduces its affinity for isocitrate and facilitates the conversion of α -ketoglutarate to D-2-Hydroxyglutarate in the presence of NADP. D-2-Hydroxyglutarate (D2HG, D-2-Hydroxyglutarate) is present at low level in normal cells and tissues, but is significantly elevated in metabolic

diseases and various cancers. Therefore, detection of elevated D2HG is important for early diagnosis, prognosis and the development of therapeutic strategies against these maladies.

Platform Microplate reader

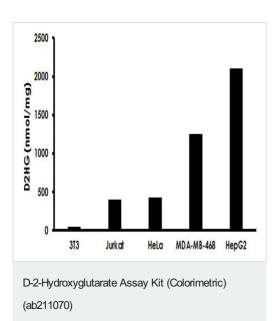
Properties

Storage instructions Store at -20°C. Please refer to protocols.

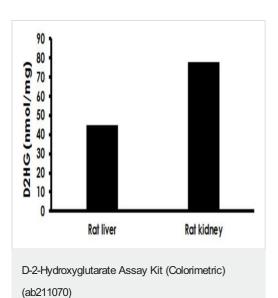
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Components	100 tests
Assay Buffer XXXII	1 x 20ml
D2HG Enzyme	1 vial
D2HG Standard	1 vial
Developer Solution III	1 vial

Images



Measurement of D-2-Hydroxyglutarate in different cell lysates: 3T3 (80 μ g; mouse), Jurkat (12 μ g), HeLa (15 μ g), MDA-MB-468 (6 μ g), and HepG2 (2 μ g).



Measurement of D-2-Hydroxyglutarate in rat liver lysate (120 $\mu g)$ and rat kidney lysate (240 $\mu g).$

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